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Peritraumatic Dissociation and Physiological Response to Trauma-Relevant Stimuli in Vietnam Combat Veterans With Posttraumatic Stress Disorder

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A recent study found that female rape victims with acute posttraumatic stress disorder (PTSD) who received a high score on the Peritraumatic Dissociative Experiences Questionnaire exhibited suppression of physiological responses during exposure to trauma-related stimuli. The goal of our present study was to test whether the same relationship holds true for male Vietnam combat veterans with chronic PTSD, using secondary analyses applied to data derived from a Veteran's Affairs Cooperative Study. Vietnam combat veterans (N = 1238) completed measures to establish combat-related PTSD diagnostic status, extent of PTSD-related symptomatic distress, and presence of dissociative symptoms during their most stressful combat-related experiences. Extreme subgroups of veterans with current PTSD were classified as either low dissociators (N = 118) or high dissociators (N = 256) based on an abbreviated version of the Peritraumatic Dissociative Experiences Questionnaire. Dependent variables reflected subjective distress along with heart rate, skin conductance, electromyographic, and blood pressure data when responding to neutral and trauma-related audiovisual and imagery presentations. Veterans in the current PTSD group had significantly higher dissociation scores than did veterans in the lifetime and never PTSD groups. Among veterans with current PTSD, high dissociators reported greater PTSD-related symptomatic distress than did low dissociators, but the groups did not differ with respect to physiological reactivity to the trauma-related laboratory presentations. Our results replicate the previously reported relationship between peritraumatic dissociation and PTSD status in Vietnam combat veterans. However, we found no association between peritraumatic dissociation and the extent of physiological responding to trauma-relevant cues in male veterans with chronic combat-related PTSD.

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The past decade has witnessed a revival of scientific interest concerning the role of dissociative behavior in response to traumatic stress. In particular, the extent to which peritraumatic dissociation may act as a potential risk factor for the subsequent development of posttraumatic stress disorder (PTSD) is a question that has generated considerable investigative attention. Some research efforts aimed at elucidating the nature of this relationship have centered on the development and use of the Peritraumatic Dissociative Experiences Questionnaire (PDEQ; Marmar et al., 1997), a retrospective self-report measure that assesses for dissociative responses occurring at the time of a traumatic event.

Using the PDEQ, several cross-sectional studies have documented that patients diagnosed with PTSD report significantly higher levels of dissociative experiences during traumatic stress exposure than do those individuals without PTSD (for review, Keane et al., 2000). Additional evidence supporting a relationship comes from several studies that used

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multivariate logistic regression analyses to quantify the capacity of PDEQ scores to predict posttraumatic responses in traumatized people above and beyond contributions from other predictor variables. For example, PDEQ scores have been found to predict current PTSD status independent of stress exposure level and general dissociative tendencies in male Vietnam combat veterans (Marmar et al., 1994), female Vietnam veterans (Tichenor et al., 1996), emergency service personnel (Weiss et al., 1995), and college students (Bernat et al., 1998).

Griffin et al. (1997) have also shown the potential impact of peritraumatic dissociation on the development of PTSD in a their laboratory experiment. As one part of a larger study investigating dissociation in female assault victims, those authors examined the relationship between PDEQ scores and physiological response to trauma-relevant stimuli in a subgroup of individuals who met diagnostic criteria for acute PTSD. Participants were recruited within 2 weeks of the assault, and a modified version of the PDEQ was used to classify them into two groups based on their reports of either low or high levels of dissociation during the event. Laboratory assessment involved monitoring autonomic arousal and heart rate and skin conductance responses while the participants talked about both a neutral topic and their sexual assault. Results showed that, within the subgroup of individuals with PTSD, those with low PDEQ scores responded with the expected increase in autonomic reactivity while talking about the sexual assault, but those with high PDEQ scores showed a suppression of autonomic reactivity. Importantly, individuals in the high dissociation group also were more likely to report greater overall PTSD symptom severity.

Results from the Griffin et al. (1997) study indicate that self-reported experiences of peritraumatic dissociation are associated with lower autonomic arousal to trauma-related cues and higher scores on a measure of PTSD symptom severity within a subgroup of acutely traumatized women meeting PTSD symptom criteria. In the present report, we focus on the question of whether this same relationship holds true for men suffering from chronic PTSD.

Methods

This work represents a secondary analysis of psychometric and physiological data collected from Vietnam veterans who participated in Veteran's Affairs Cooperative Study #334 (CS334; Keane et al., 1998). A detailed description of the methodology for CS334 has been published previously (Keane et al., 1998). What follows is a selective summary of the sample, measures, experimental procedures, and data analytic techniques used with respect to the present study.

Sample

Participants were male Vietnam combat veterans who were using inpatient and outpatient services at 15 Department of Veterans Affairs (VA) medical centers across the United States. Study criteria excluded individuals with a history of cardiovascular disease, endocrine disorder, seizure disorder, or organic brain syndrome. Individuals also were excluded if they currently were using beta-adrenergic blocking agents or any psychotropic medication known to affect autonomic nervous system functioning. In addition, illicit drug and alcohol use during the course of the study was prohibited. All veterans gave their written informed consent after a complete verbal description of the purpose of the study and the risks involved.

Diagnostic and Psychometric Assessment Measures

Data for the present study were obtained from the following diagnostic and psychometric assessment measures: the War Stress Inventory (Rosenheck and Fontana, 1989) to provide sociodemographic information; the PTSD module of the Structured Clinical Interview for the *Diagnostic and Statistical Manual* (3rd ed) of the American Psychiatric Association DSM-III-R (SCID; American Psychiatric Association, 1994; Spitzer et al., 1989) to establish PTSD diagnostic status (current, lifetime, or never); the Combat Exposure Scale (CES; Keane et al., 1989) to assess level of combat exposure; the Mississippi Scale for Combat-Related PTSD (MISS; Keane et al., 1988) and the MMPI-2 PTSD subscale (MMPI-PK; Keane et al., 1984) to evaluate the extent of self-reported PTSD symptom distress; and an abbreviated, four-item version of the Peritraumatic Dissociative Experiences Questionnaire (aPDEQ; Appendix 1). The aPDEQ, like the original 10-item PDEQ developed by Marmar et al. (1994), is an interviewer-based measure that assesses the presence of dissociative symptoms during an index event. For the current study, each participant's index event was his most stressful combat-related experience while serving in Vietnam.

We previously established that the aPDEQ functions as a reasonable proxy for the full PDEQ in a study examining the relationship between these two measures in a group of 32 combat veterans

(Kaufman et al., 1999). Pearson product correlations showed excellent correspondence between the two versions ($r = .95$, $df = 30$, $p = .01$), and both the full PDEQ ($r = .52$, $df = 30$, $p < .01$) and the aPDEQ ($r = .45$, $df = 30$, $p < .05$) showed moderate positive associations with total score on the Dissociative Experiences Scale (DES; Bernstein and Putnam, 1986). Furthermore, a point bi-serial correlation with Clinician Administered PTSD Scale–derived PTSD status showed that the aPDEQ and the full PDEQ account for similar amounts of variance with respect to PTSD diagnosis (aPDEQ: $r = .81$, $df = 30$, $p = .01$; full PDEQ: $r = .77$, $df = 30$, $p = .01$).

In the present study, each question on the aPDEQ was rated dichotomously to reflect either the absence (0) or presence (1) of dissociative symptomatology. The four items were summed to generate a total score, ranging from 0 to 4, for each participant in the study.

Psychophysiological Assessment

The study used both a standardized, audiovisual format (Malloy et al., 1983) and an idiographic imagery format (Pitman et al., 1987) for the presentation of neutral and combat-relevant stimuli. Physiological measures consisted of heart rate (HR) recorded as beats per minute, skin conductance (SC) recorded in microsiemens, frontalis electromyogram (EMG) recorded in microvolts, and systolic and diastolic blood pressure (SBP and DBP) recorded in millimeters of mercury. Recordings of HR, SC, and EMG were made continuously throughout the physiological assessment, and BP measures were made once at the end of each task period during the audiovisual presentation only. Detailed information regarding the recording data sampling procedures is provided in Keane et al. (1998).

Each study site followed the same standardized laboratory protocol in conducting the physiological assessment. The procedure began with a 10-minute rest period (baseline 1) during which participants relaxed quietly. Participants next were asked to perform mental arithmetic, which served as a generic stressor, for 2 minutes. Following a 5-minute rest period (baseline 2), they were presented with six standardized neutral audiovisual scenes that lasted 1 minute each. Subjective units of distress ratings (SUD; 0–100 scale) were obtained during 30-second intervals between scenes. A 5-minute rest period (baseline 3) followed the last SUD rating interval, after which participants were presented with six standardized combat audiovisual scenes that lasted for 1 minute each. SUD ratings were collected during 30-second intervals between scenes. The combat presentation was followed by a 5-minute rest period (baseline 4).

Following another 5-minute rest period (baseline 5), participants began the imagery script procedure. This involved presentation of four tape-recorded imagery scripts. Two of these were standardized neutral scripts and two were combat-relevant scripts describing personally relevant combat situations. Each script presentation consisted of four sequential 30-second intervals during which the participants did the following: a) rested quietly to establish baseline physiological measures, b) listened to a prerecorded reading of the script, c) vividly imagined the events depicted in the script, and d) recovered from imagery by again resting quietly. The order of script presentation was fixed, with neutral scripts presented first and third in a sequence, alternating with the combat-related scripts. At the conclusion of each presentation, several self-report ratings were made, including one for emotional valence (subjective unpleasantness) of the imagery experience on a 12-point Likert scale. The physiological assessment was concluded after a final 5-minute rest period (baseline 6).

Dependent Variables

Data for dependent variables derived from diagnostic and psychometric assessment measures included categorical scores for PTSD status (current, lifetime, or never) obtained from the SCID, and total scores obtained on the CES, MISS, and MMPI-PK. Data for dependent variables derived from psychophysiological assessment measures were obtained as follows. Mean scores for neutral and combat task periods were calculated for successive 30-second intervals. This resulted in 12 intervals each for the neutral and combat audiovisual presentations (*i.e.*, 2 intervals per slide), and one interval during each imagery script presentation. HR, SC, and EMG samples were averaged across all nonmissing values within a 30-second interval. SBP and DBP were based on the single reading recorded at the end of each task period during the audiovisual presentation. Mean SUD ratings for the neutral and combat audiovisual presentations were calculated by averaging across values obtained during the 30-second intervals between scenes, and mean subjective unpleasantness ratings for the neutral and combat imagery script procedure were calculated by averaging across values obtained following each script presentation.

TABLE 1
Comparisons Between Current Posttraumatic Stress Disorder (PTSD) Subgroups Based on Dissociation Status: Demographics, Combat Exposure, and PTSD Symptom Distress

Variable	Low Dissociators[a]		High Dissociators[a]		Analysis		
	Mean	*SD*	*Mean*	*SD*	*t*	*df*	*p*[b]
Age (yrs)	43.0	2.7	42.7	3.1	0.6	372	NS
Annual income ($ US thousands)	14.4	12.5	13.0	13.6	0.9	370	NS
Years of premilitary education	11.4	1.8	11.4	1.6	−0.3	371	NS
Age on arrival to Vietnam	19.6	2.0	19.7	2.4	−0.6	370	NS
No. mos. in Vietnam	14.6	9.8	13.4	1.4	1.4	370	NS
Years of postmilitary education	2.2	2.2	2.1	2.0	0.6	371	NS
Combat Exposure Scale (total score)	29.8	8.8	29.2	8.1	0.7	369	NS
Mississippi Scale (total score)	120.3	19.1	125.9	18.1	−2.7	368	<.01
MMPI-2 PK[c] (total score)	29.3	9.2	31.3	9.7	−1.9	362	<.06
	N	%	*N*	%	χ^2	*df*	*p*
Race					15.2	4	<.005
African-American	12	10.3	58	22.7			
American Indian	1	0.8	10	3.9			
Asian/Pacific Islander	1	0.8	2	0.8			
Caucasian	91	77.8	148	58.0			
Hispanic	12	10.3	37	14.5			
Branch of the military					6.0	4	NS
Air Force	2	1.7	11	4.3			
Army	63	53.4	158	61.9			
Coast Guard	0	0.0	1	0.4			
Navy	9	7.6	15	5.9			
Marines	44	37.3	70	27.5			

[a] Sample size ranged from 115 to 118 for the low dissociator group and from 249 to 256 for the high dissociator group. These ranges are a consequence of individual missing values among the variable measurements.

[b] Comparison-wise alpha probability levels were set at 0.007 for demographic data and 0.025 for PTSD symptom severity level to maintain the overall probability of a type I error at 0.05.

[c] Minnesota Multiphasic Personality Invetory Keane PTSD Scale.

Results

Peritraumatic Dissociation and PTSD Status for the Full Sample

A total of 1238 veterans completed the aPDEQ. Each veteran was categorized into one of three groups based on PTSD status obtained from SCID criteria: current PTSD (N = 728), lifetime PTSD (N = 163), or never PTSD (N = 347). One-way analysis of variance (ANOVA) was applied to total score on the aPDEQ with PTSD status (current, lifetime, or never PTSD) as the independent variable. Results showed a main effect for group (F = 92.8, df = 2, 1235, $p < .001$). Post hoc pairwise comparisons using the Tukey test showed that all three PTSD groups differed significantly ($p < .05$) from one another (current PTSD mean = 2.8, SD = 1.2; lifetime PTSD mean = 2.4, SD = 1.3; never PTSD mean = 1.7, SD = 1.3).

Demographic and PTSD Symptom Severity Data for Dissociation Subgroups within the Current PTSD Group

Extreme subgroups were created from among individuals diagnosed with current PTSD such that those with a total aPDEQ score of 0 or 1 were designated low dissociators (N = 118) and those with a total score of 4 were designated high dissociators (N = 256). Independent group t-tests applied to continuous demographic data and Pearson's chi square with Yates continuity correction applied to categorical demographic data showed that high dissociators did not differ from low dissociators with respect to educational level before service in Vietnam, age at first arrival to Vietnam, months served in Vietnam, or branch of the military served in Vietnam. In addition, there were no intergroup differences in terms of age at the time of the study, annual income, years of education following Vietnam, or degree of self-reported combat exposure (Table 1). As such, dissociation status does not appear to be associated with military demographics or general functional impairment. The only demographic variable to show a difference between dissociation groups was race. Follow-up analyses determined that African Americans were underrepresented in the low dissociator group (10.3% vs. 22.7%, χ^2 = 13.6, df = 1, $p < .001$) and whites were underrepresented in the high dissociator group (77.8% vs. 58.0%, χ^2 = 15.2, df = 1, $p < .005$).

TABLE 2
Analysis of Variance Applied to Physiological and Subjective Responses to Audiovisual Presentations Across Neutral and Combat Conditions for Veterans with Current Posttraumatic Stress Disorder Divided on Dissociation Status

	Low Dissociators[a]		High Dissociators[a]		Analysis		
Variables	*Mean*	*SD*	*Mean*	*SD*	*F*	*df*	*p*[b]
Heart Rate (bpm)					29.0	1,198	<.001[c]
Neutral	75.9	9.6	78.0	10.0			
Combat	78.5	9.5	79.4	10.3			
Skin Conductance (μS)					34.0	1,187	<.001[c]
Neutral	5.4	3.8	5.1	4.5			
Combat	5.9	4.1	6.0	5.0			
Electromyogram (μV)					4.8	1,188	<.05
Neutral	6.3	4.5	6.3	3.8			
Combat	6.9	5.8	6.9	4.7			
Systolic Blood Pressure (mm Hg)					11.5	1,196	<.001[c]
Neutral	121.7	14.5	120.5	14.0			
Combat	124.8	15.0	122.6	16.6			
Diastolic Blood Pressure (mm Hg)					8.4	1,196	<.01[c]
Neutral	74.9	10.0	73.8	9.5			
Combat	76.2	10.2	75.1	10.0			
Subjective Units of Distress					818.5	1,334	<.001[c]
Neutral	5.8	10.9	7.9	13.6			
Combat	47.4	28.3	55.3	27.1			

[a] For physiological response data, sample size ranged from 51 to 56 for the low dissociator group and from 136 to 144 for the high dissociator group. For subjective response data, sample size was 107 for the low dissociator group and 229 for the high dissociator group. These ranges are a consequence of individual values missing among the variable measurements.

[b] Comparison-wise alpha probability levels were set at 0.0125 for physiological data and 0.025 for subjective response data to maintain the overall probability of a type I error at 0.05.

[c] Significant main effect for Condition. No significant effects were found for Dissociation Status or the Dissociation × Condition interaction based an alpha probability level of 0.05.

Results of independent group *t*-tests show that those in the high dissociator group had significantly higher total scores on the MISS ($p < .01$) and showed a trend toward higher total scores ($p < .06$) on the MMPI-PK, both reflecting subjective PTSD symptom severity reports (Table 1).

Peritraumatic Dissociation and Physiological Responding in Posttraumatic Stress Disorder

The relationship between peritraumatic dissociation and physiological responding in PTSD was examined for four physiological variables obtained from the participants in the current PTSD group who underwent the full physiological assessment procedure. This information is shown in Table 2 for the audiovisual presentation and in Table 3 for the imagery script presentation.

We conducted separate 2 × 2 repeated measures analyses of variance (ANOVAs) on each physiological variable (HR, SC, EMG, SBP, and DBP) for both presentation types. Each analysis used Dissociation Group (low vs. high) as the between subjects factor and Challenge Condition (neutral vs. combat) as the repeated, intrasubject factor.

Findings for both the audiovisual and idiographic imagery script presentations consistently revealed a main effect for condition on each physiological measure, with the exception of EMG during the audiovisual presentation that failed to meet the alpha probability value of .0125 determined as necessary for statistical significance. All other condition effects reflected the fact that, for both low and high dissociators, the physiological measures obtained during combat challenge conditions were significantly higher than those obtained during neutral conditions. However, there was no significant Condition by Group interactions for any of the physiological variables.

Peritraumatic Dissociation and Subjective Distress to Stimuli Presentations in Posttraumatic Stress Disorder

Separate 2 × 2 repeated measure ANOVAs were also conducted on mean SUD ratings collected during the audiovisual presentation (Table 2) and mean unpleasantness ratings collected during the imagery script presentation (Table 3), using Dissociation Group (low vs. high) as the intersubject factor and Challenge Condition (neutral vs. combat) as the repeated, intrasubject factor. Each analysis revealed a Main Effect for Condition. Thus, both low and high

TABLE 3

Analysis of Variance Applied to Physiological and Subjective Responses to Imagery Script Presentations Across Neutral and Combat Conditions for Veterans with Current Posttraumatic Stress Disorder Divided on Dissociation Status

Variables	Low Dissociators[a]		High Dissociators		Analysis		
	Mean	*SD*	*Mean*	*SD*	*F*	*df*	*p*[b]
Heart Rate (bpm)					98.2	1,198	<.001[c]
Neutral	68.7	8.5	70.4	9.8			
Combat	72.2	9.2	73.1	9.7			
Skin Conductance (μS)					107.1	1,190	<.001[c]
Neutral	4.1	3.2	4.2	3.7			
Combat	5.0	3.9	4.9	4.0			
Electromyogram (μV)					33.6	1,188	<.005[c]
Neutral	2.2	1.5	2.2	1.4			
Combat	3.3	2.0	3.3	2.5			
Unpleasantness rating					761.7	1,335	<.001[c]
Neutral	4.4	2.3	3.5	2.3			
Combat	8.9	2.9	9.8	2.4			

[a] For physiological response data, sample size ranged from 51 to 56 for the low dissociator group and from 138 to 144 for the high dissociator group. For subjective response data, sample size was 108 for the low dissociator group and 229 for the high dissociator group. These ranges are a consequence of individual missing values among the variable measurements.

[b] Comparison-wise alpha probability levels were set at 0.0125 for physiological data and 0.025 for subjective response data to maintain the overall probability of a type I error at 0.05.

[c] Significant main effect for Condition. No significant effects were found for Dissociation Status or the Dissociation × Condition interaction based on alpha probability level at 0.05.

dissociators reported significantly higher levels of subjective distress during combat versus neutral conditions. However, the Main Effect for Condition on unpleasantness ratings was modified by a significant Condition by Group interaction ($F = 19$, $df = 1, 335$, $p < .001$). Follow-up independent groups t-test analyses showed that, compared with low dissociators, high dissociators reported significantly lower unpleasantness ratings during the neutral condition ($p < .01$) but significantly higher unpleasantness ratings during the combat condition ($p < .01$). A Condition by Group interaction for SUD ratings reached a level of significance indicative of a trend ($F = 3.5$, $df = 1, 334$, $p < .06$), and follow-up independent group t-test analyses showed that high dissociators reported higher SUD scores during the combat condition compared with low dissociators ($p < .05$).

Discussion

Results from this investigation provide support for an association between peritraumatic dissociation and PTSD status in a large sample of Vietnam combat veterans. As with findings from previous studies (for review, Keane et al., 2000), veterans diagnosed with current PTSD provided retrospective reports of significantly higher levels of dissociative experiences during war-zone stress than did those veterans without PTSD. In addition, a distinctive aspect of this investigation was its inclusion of veterans with a diagnosis of lifetime PTSD. These individuals reported peritraumatic dissociative experiences at a level between that reported by veterans in the current and never PTSD groups.

In addition, we found that veterans diagnosed with current PTSD who were categorized as high dissociators reported greater subjective distress on PTSD scales than did those who were categorized as low dissociators. This finding parallels Griffin et al. (1997) results showing that assault victims with PTSD who were categorized as high dissociators by using a modified version of the PDEQ reported significantly higher scores on the PTSD Symptom Scale Interview (Foa et al., 1993).

Given the pattern of findings across studies, several interpretations are possible. First, there may be a direct, dose-response relationship between peritraumatic dissociation and the development, maintenance, and severity of later PTSD-related psychopathology. Second, peritraumatic dissociation may contribute in an additive manner to the likelihood of developing PTSD by combining with other known risk factors, such as early trauma history, perceived life threat, and extent of social support following the trauma (King et al., 1999). Or, third, given that some evidence documents that individuals with PTSD manifest biases in their reconstruction of traumatic events (Southwick et al., 1997), PTSD status may similarly bias the recall or reporting of peritraumatic dissociative experiences (Keane et al., 2000). Unfortunately, the current design does not allow us to choose among these options.

Griffin et al. (1997) reported a potential functional impact of dissociation by showing that sexual as-

sault victims with acute PTSD who scored high on the PDEQ exhibited a suppression of HR and SC responses to laboratory-based reminders of their trauma. Results from the present study do not replicate this finding; combat veterans with current PTSD who were categorized as high dissociators showed no evidence of physiological suppression to laboratory representations of trauma-relevant stimuli. Indeed, regardless of dissociation status, physiological measures increased significantly during presentations of combat cues relative to neutral cues. This absence of a difference between dissociation groups is found across both audiovisual and imagery presentation formats, and across several physiological response channels. Given the uniformity of our results and the relatively high statistical power afforded by our sample size, we conclude that there is no association between the extent of peritraumatic dissociation and physiological response to trauma-relevant cues in veterans with chronic combat-related PTSD. However, our results did show that the high dissociators reported higher intensity levels of distress during the trauma-relevant priming conditions relative to the low dissociators. Thus, it appears that dissociation at the time of war-zone stress does relate to the extent of later subjective response to such cues.

Several possible reasons exist for why results in the present study did not replicate the peritraumatic dissociation effects with respect to physiological response found in the Griffin et al. (1997) study. Sample characteristics between the two studies differed in terms of gender of subjects and type of trauma. In addition, procedural issues between the two studies diverged with respect to methods for eliciting emotional reactions and versions of the PDEQ. The PDEQ version used in the present study consisted of four dichotomous questions that indexed the presence or the absence of each dissociative symptom experienced at the time of the war zone trauma. In contrast, the PDEQ version used in the Griffin et al. (1997) study consisted of eight questions rated on a Likert scale with point values anchored to the relative frequency of each dissociative symptom ranging from 0 (not at all) to 4 (all the time). Thus, comparatively, there was an eightfold scaling difference between the two studies with respect to quantification of peritraumatic dissociative symptomatology. This difference in range may have affected the classification rates of individuals as low or high dissociators. In the present study, the percentage of study subjects in the total PTSD sample who were classified as high dissociators was twice that of the percentage classified as low dissociators (35% versus 16.2%, respectively). High and low dissociator classification rates within PTSD study subjects were not presented in the Griffin et al. (1997) study, so we are unable to make a direct comparison of these results. Nevertheless, it is important to acknowledge that the manner in which peritraumatic dissociation was assessed may have contributed to the differential physiological results found between the two studies.

Perhaps the most salient difference between the two studies is the amount of time elapsed since the traumatic experience. The period of time from traumatic event to laboratory assessment was weeks in the Griffin et al. (1997) study contrasted with decades in the present study. Given the differences in time frame and results for these studies, a straightforward explanation is that retrospective self-reports of peritraumatic dissociation are more accurate in the near term. Alternatively, even if such reports are accurate over periods of many years, it is possible that the tendency to enter dissociative states in response to encounters with trauma-relevant cues is more stable in the short term than over the long term. Thus, dissociative behavior during a traumatic event may be more predictive of later dissociation in the lab if less time elapses between the two occasions.

Unfortunately, neither study obtained dissociation ratings indexed to the laboratory experience so that current and retrospective scores could be compared. Recognizing this need, we currently are using the PDEQ as a means to assess level of self-perceived dissociation experienced by Vietnam combat veterans during exposure to trauma-relevant imagery script cues in the psychophysiology laboratory. Our preliminary results, based on a sample size of 46, show that there is a significant positive association between reports of dissociative symptoms elicited by trauma cues in the lab and those retrospectively indexed to the original war-zone stressor (Pearson's product correlation $r = .63$, $p = .01$). Although the magnitude of this correlation is only in the moderate range, it does lend support to the hypothesis raised in the Griffin et al. (1997) study that some people who dissociate at the time of a traumatic stressor may continue to dissociate to reminders of the event for weeks, or even decades, after the experience. However, on the basis of the psychophysiological findings presented in this paper, the most definite thing we can conclude is that retrospectively reported peritraumatic dissociation is not uniformly associated with autonomic response suppression like that shown by Griffin et al. (1997).

Appendix 1

The Abbreviated Peritraumatic Dissociative Experiences Questionnaire (aPDEQ)

I'd like you to recall as best you can how you felt and what you experienced at the time that *the most upsetting* thing happened to you in the war.
I am going to ask you some specific questions about how you felt *at that time.*

1. (At that time) did you have moments of losing track of what was going on—that is, did you "blank out," "space out," or in some way feel that you were not a part of the experience?
2. (At that time) did your sense of time change during the event—that is, did things seem unusually speeded up or slowed down?
3. (At that time) did what was happening seem unreal to you, as though you were in a dream or watching a movie or play?
4. Were you surprised to find out after the event that a lot of things had happened at the time that you were not aware of, especially things that you felt you ordinarily would have noticed?

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